

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Additional Spectrum for Unlicensed Devices)	ET Docket No. 02- 380
Below 900 MHz and in the 3 GHz Band.)	
)	
)	
)	

Comments of Comsearch

Comsearch, pursuant to §1.415 of the FCC rules, hereby respectfully submits the following comments in response to the Notice of Inquiry ("NOI") in the above captioned proceeding.

Comsearch is an independent engineering firm specializing in spectrum management of fixed point-to-point and point-to-multipoint terrestrial microwave, satellite and mobile telecommunications systems. Comsearch has spent the past 25 years working with the FCC and actively participating in various leading industry groups to develop rules, industry recommendations, and standards to promote efficient use of the radio spectrum.

In the NOI, the Commission requests comment on the feasibility of permitting unlicensed devices to operate in additional frequency bands, specifically in the TV broadcast spectrum (TV bands) and in the 3650 – 3700 MHz (3.6 MHz) band. With respect to potential interference, the Commission desires to allow maximum flexibility and opportunity for unlicensed devices while adequately protecting licensed operations.

The NOI points out that sharing may be possible “provided the (unlicensed) transmitter complies with appropriate limits on its power, operating frequency and location.”¹ To ensure compliance with these limits, the Commission refers to certain technology solutions such as “listen before talk” protocols to determine appropriate frequency use and GPS to identify the location of a given transmitter.

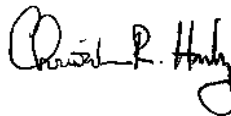
In addition to considering technology solutions, the Commission should also consider for certain types and applications of unlicensed devices the use of device registration as a means of minimizing interference into licensed systems. This registration would include location information along with other operating parameters. Industry controlled device registration in conjunction with liberal FCC rules has the potential to provide sufficient flexibility while effectively addressing interference with licensed incumbents. The Commission previously implemented the industry device registration/coordination concept when it designated UTAM to register and manage unlicensed PCS deployment in the 1.9 GHz spectrum shared with licensed fixed microwave systems. Prior to deployment, unlicensed PCS operators are required to coordinate through UTAM, providing technical operating specifications such as power and location. Each of these device registrations is studied through the use of automated interference algorithms to determine if implementation would impact licensed services. Interference is studied on a per-device basis and also on an area-wide basis depending upon the proximity of licensed operations. Additional interference controls render the devices inoperable if they are moved more than a certain distance from the registered/installed location.

¹ NOI at ¶ 13.

A similar type of device registration process could be effective in allowing unlicensed operation in the TV and 3.6 GHz bands since the locations of the licensed systems are fixed and the operating parameters are known. This registration/coordination process should be industry controlled to minimize the burdens on the Commission. To be effective it should be a web-based automated procedure that includes some form of interference analysis to predict potential conflicts with licensed systems. The analysis would be run against data within the database and systems meeting the interference criteria would be approved for installation. In addition, such a registry of unlicensed devices, once created, could be used by the Part 15 users to coordinate among themselves. This would provide some level of interference protection currently missing from existing unlicensed bands and is consistent with the recommendations of the FCC's Spectrum Policy Task Force.²

Respectfully Submitted,

COMSEARCH
19700 Janelia Farm Boulevard
Ashburn, Virginia 20147



Prepared by: _____
Christopher R. Hardy
Vice President

Date: April 16, 2003

² See Spectrum Policy Task Force Report at p. 54. "For new unlicensed bands, access should be controlled by a new type of band manager or frequency coordinator selected by the FCC."